


**MARYLAND DEPARTMENT OF TRANSPORTATION
MARYLAND AVIATION ADMINISTRATION**

MEMORANDUM

TO: Distribution

FROM: Mr. Peter D. Charles, AIA 
Manager, Division of Architecture
Office of Design and Construction

DATE: July 10, 2013

SUBJECT: Design Standard (DST) 2013-04, Concourse Smoke Separations and Fire Separations
New Section 15.4.2.7.7 Concourse Smoke Separations and Fire Separations
New Section 15.4.4 Construction Types and Use Classifications

Effective immediately, the following changes shall be incorporated into Section 15.4.2.7, *Smoke Control and HVAC*, of the MAA Design Standards Manual, dated January 2013:

1. Remove Section 15.4.2.7.7 in its entirety and replace with the new Section 15.4.2.7.7, Concourse Smoke Separations and Fire Separations.
2. Remove Section 15.4.4 Existing Construction Types, table and graphic in its entirety and replace with the new Section 15.4.4, Existing Construction Types and Use Classifications table and graphics.

Consultants listed herein are required to distribute this design standard to their respective sub consultants.

If you believe the above specifications conflict with any other codes or regulations, or if you should have any questions regarding this matter, please contact the Manager, Division of Architecture at 410-859-7260.

Attachment

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Supplement to the MAA Design Standards Manual 2013
Design Standard (DST) 2013-04, Concourse Smoke Separations and Fire Separations
Section 15.4.2.7.7 Concourse Smoke Separations and Fire Separations
Section 15.4.4 Existing Construction Types and Use Classifications
July 11, 2013

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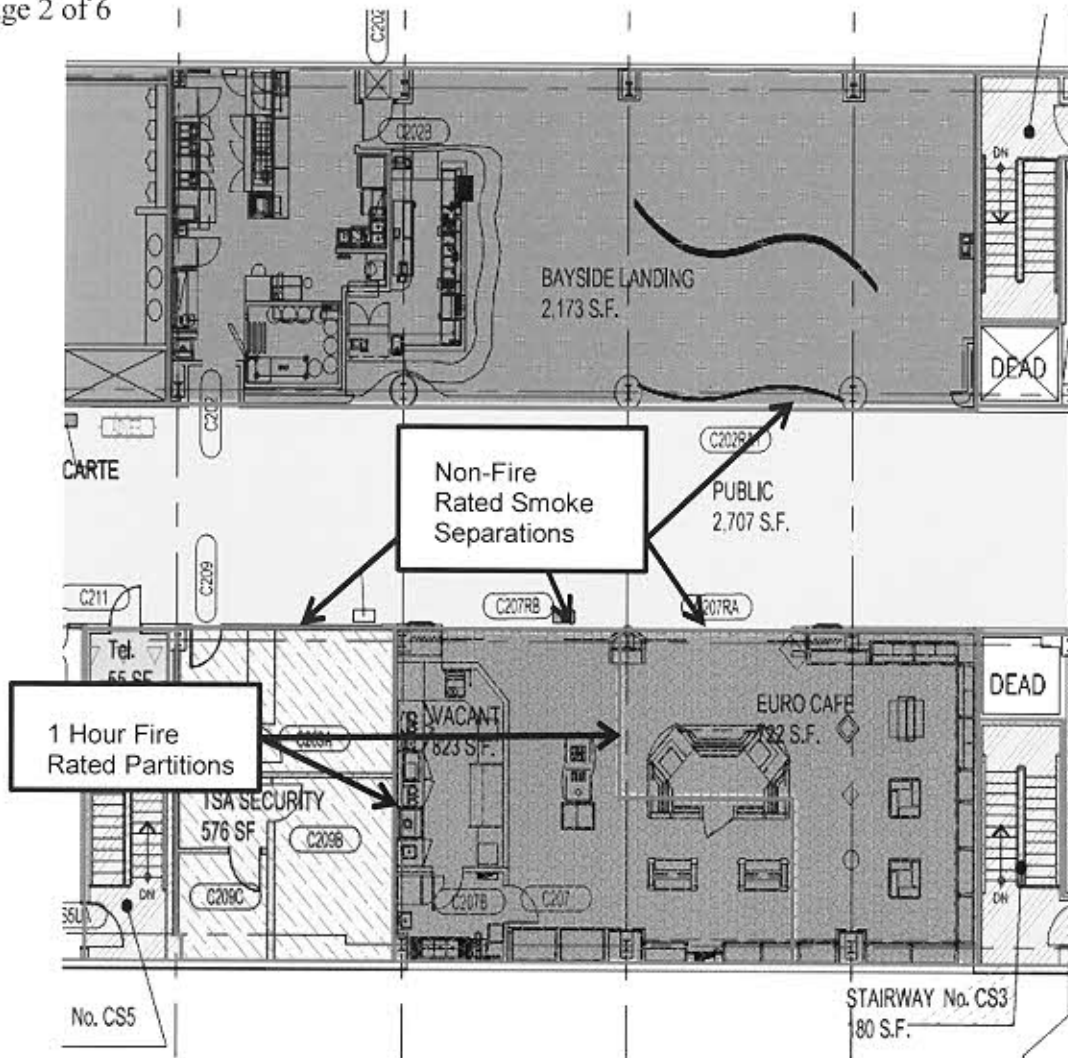
15.4.2.7.7 Concourse Smoke Separations and Fire Separations

In Concourses C, D, DX, DY, the Commuter Concourse, the North Terminal Extension, the North Terminal, the South Terminal, the Central Terminal, the B-C Connector and future Concourses and Connectors, the requirements of (a.) and (b.) below shall apply:

a. Concourse Upper Level Tenant Separation Requirements

Smoke separations are required on the Concourse departure level in retail storefront areas and other tenant spaces (except Hold Rooms) that directly front on Concourse public circulation areas and public corridors. Concourse smoke separations are not required to be fire endurance rated, but must be of non-combustible construction and must extend tight to the underside of the roof or floor deck above and be constructed to resist smoke from entering the public circulation space from the tenant space. All duct penetrations of smoke separations shall be provided with UL listed, self-resetting, electrically actuated, smoke dampers. ASTM 685 compliant plastics are required to be applied to storefront grilles when comprising a portion of a smoke separation. Sliding doors are not considered compliant as smoke separation doors unless provisions are made for gap coverage to prevent smoke migration. Solid faced rolling doors are permitted to be used as smoke doors. All gaps must be sealed to resist migration of smoke.

Exception – Kiosk vendors, mobile vendor carts, and other small tenant spaces may be exempted from smoke separation requirements, subject to determination of the Office of the Fire Marshal.



Example 1- Concourse Level

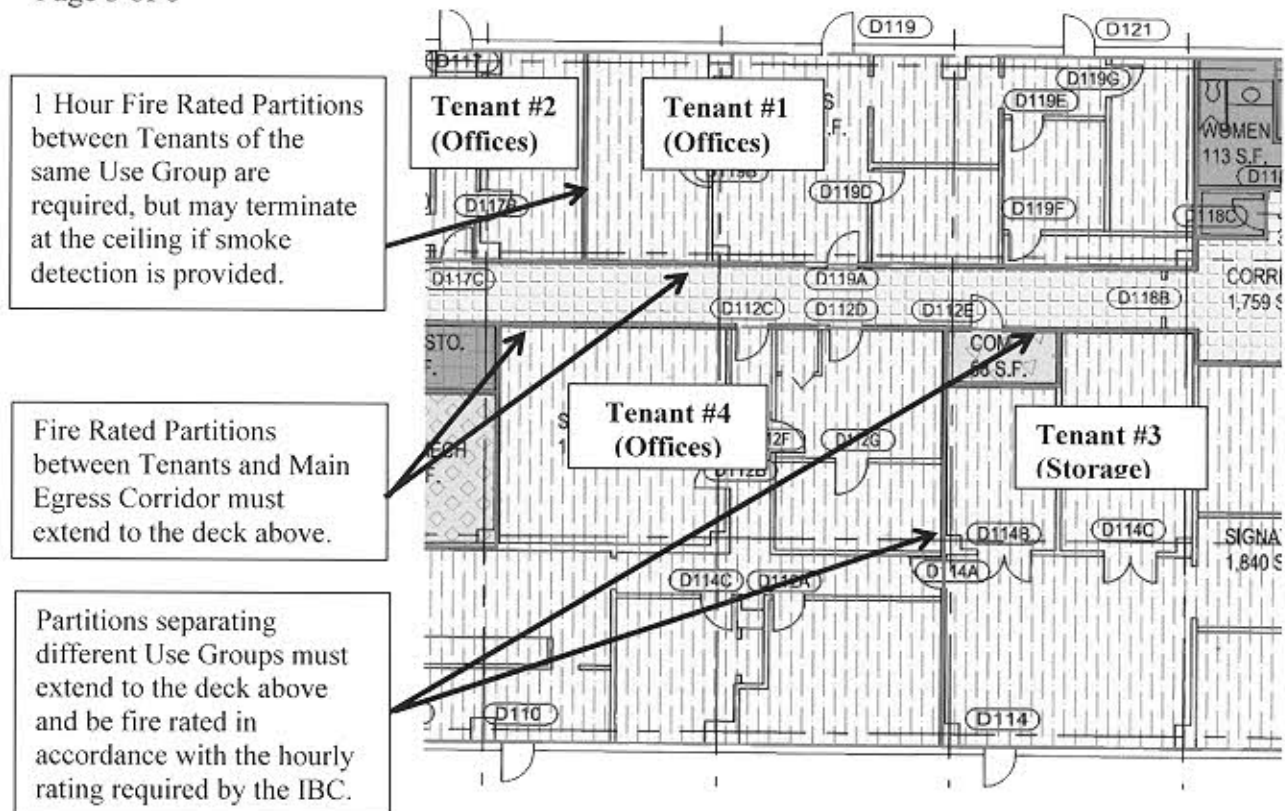
b. Lower Level Tenant Separation Requirements

Use Group Separations:

Fire rated fire separation walls are required between adjoining tenant spaces and also between tenant spaces and service corridors serving multiple tenants. If separating Use Groups, the fire rated walls are required to extend tightly to the underside of the floor or roof deck above with all ductwork penetrations provided with U.L. listed, self-resetting, electrically actuated fire dampers and all wiring penetrations protected in accordance with a U.L. listed penetration protection design. Fire rated separation walls between Use Groups shall comply with the fire rating requirements of the IBC and shall be constructed of non-combustible materials.

Tenant Separations, Same Use Group:

Fire rated fire separation walls are required between adjoining tenant spaces and also between tenant spaces and service corridors serving multiple tenants. If ceiling-mounted area smoke detection is provided within the tenant spaces, the fire separation wall may terminate at the underside of a UL listed fire rated floor-ceiling Assembly. Fire rated separation walls separating tenants shall be one (1) hour fire rated and constructed of non-combustible materials.



Example 2: Lower Level – Fire Rated Partitions

Note: Where a one (1) hour fire rated tenant separation is required for a new tenant that could potentially disturb an existing adjacent tenant space, the new tenant space may be separated in accordance with Figure 1 or Figure 2 below, an alternate U.L. listed one (1) hour rated assembly. In such case, the fire separation partition shall extend to either the ceiling or to the deck above, as appropriate per Paragraph 7 above.

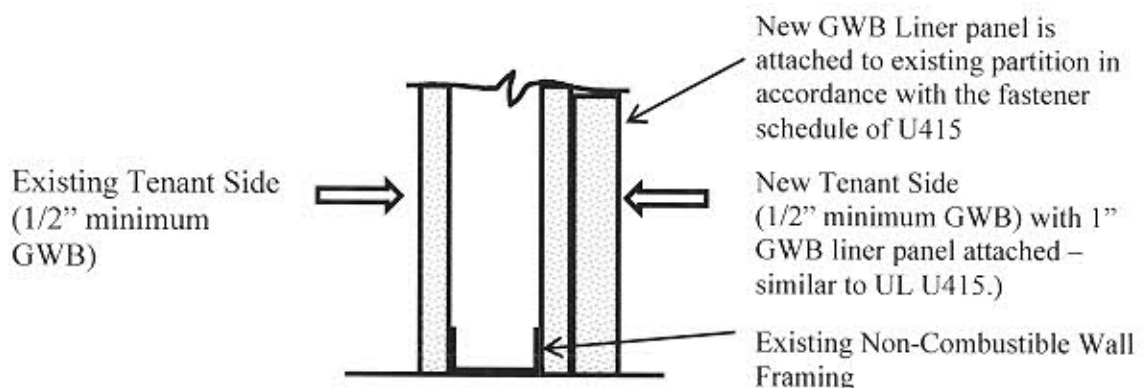


Figure 1 – Condition where 1/2" drywall is on one, or both, sides of an existing tenant separation partition, and does not currently provide a 1 hour rating without additional GWB liner panel being installed.

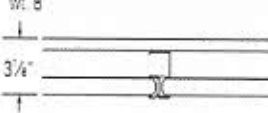
1-Hour Fire-rated Construction		Non-loadbearing		Acoustical Performance		Reference	
Construction Detail		Description	Test Number	STC	Test Number	ARL	Index
 <p>wt. 8 ↓ 3 1/8" ↓</p>		<ul style="list-style-type: none">• 5/8" SHEETROCK Firecode Core gypsum panels, joints finished• 2-1/2" USG C-H Studs 25 gauge 24" o.c.• 1" SHEETROCK gypsum liner panels	UL Des U415, System A or U469	39	USG-040901 Based on 4" C-H studs 25 gauge	SA926	1

Figure 2 – Condition where 5/8" "Fire code" drywall exists on only one side of the tenant separation partition and a gypsum liner panel is installed to complete the required separation.

15.4.4 Existing Construction Types and Use Classifications

EXISTING CONSTRUCTION TYPES AND USE CLASSIFICATIONS TABLE

Locations	Use Group Separations (and Smoke Separations)	Construction Type	Code Built Under
A Concourse	Mixed Use (Smoke Separation Required Between Tenants & Mall)	IBC Type IB	IBC 2000 NFPA 101-2000
B Concourse	Mixed Use (Smoke Separation Required Between Tenants & Mall)	IBC Type IB	IBC 2000 NFPA 101-2000
A/B Terminal	Mixed Use (Smoke Separation Required Between Tenants & Mall)	IBC Type IB	IBC 2000 NFPA 101-2000
B-C Connector	Mixed Use (Smoke Separation Required Between Tenants & Mall)	IBC Type IB	IBC 2009 NFPA 101-2009
C Concourse	Mixed Use (Smoke Separation Required Between Tenants & Mall)	Undocumented Construction Type	Unknown
D Concourse	Mixed Use (Smoke Separation Required Between Tenants and Mall)	Undocumented Construction Type	Unknown
E Concourse	Covered Mall (No Smoke Separations Required Between Tenants and Mall)	Type IIB, Protected Column, Unprotected Roof	BOCA 1993
North Terminal Extension (Between D and E)	Separated Uses (Smoke Separation Required Between Tenants and Mall)	Undocumented Construction Type	Unknown
Center Terminal	Separated Uses (Smoke Separation Required Between Tenants and Mall)	Undocumented Construction Type	Unknown
North Terminal	Separated Uses (Smoke Separation Required Between Tenants and Mall)	IBC Type IB	Unknown
South Terminal	Separated Uses (Smoke Separation Required Between Tenants and Mall)	IBC Type IB	Unknown

15.4.4, Existing Construction Types and Use Classifications

EXISTING CONSTRUCTION TYPES AND USE CLASSIFICATIONS GRAPHIC

